

Endoscopic Extraction of 3 Foreign Bodies: A Report of 3 Cases

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Abstract

The ingestion of foreign bodies is a condition rarely observed. We report here 3 cases of ingestion of foreign bodies of different nature. All of these cases were managed by endoscopy. Indeed, the endoscopic route is the ideal treatment in the case of ingestion of foreign bodies.

Keywords: Foreign bodies; Endoscopy; Extraction

Introduction

The ingestion of foreign bodies is a rare condition that may be observed. While the vast majority of ingested foreign bodies will pass the gastro intestinal tract spontaneously, some may require endoscopic or surgical extraction. Indeed, they may be life-threatening. [1,2] We report herein 3 cases of different foreign bodies ingestion that were successfully managed endoscopically.

Case Report

Case 1

A 39-year-old woman, with no past medical history, presented for epigastric pain. Indeed, the patient had accidentally swallowed a toothbrush 2 hours ago, while brushing her teeth. On physical examination, vital signs were stable. Abdominal exam was normal. X-ray abdomen revealed the bristled part of tooth brush in the left upper quadrant of abdomen. An upper gastrointestinal endoscopy was performed and showed the toothbrush which was located transversally in the gastric body. Endoscopic extraction with Dormia basket was done successfully [Figure 1]. The patient was discharged few hours later.

Case 2

A 36-year-old man, with no past medical history, was admitted with epigastric pain. The patient accidentally swallowed a pin when he was trying to remove food particles lodged between the teeth. Physical examination found tenderness in the right upper abdomen. Computed tomography scan of the abdomen showed a wall thickening of the second portion of the duodenum around a 32 mm long linear foreign body. This foreign body crosses the duodenal wall and passes into the lesser momentum. An upper gastrointestinal endoscopy was done and showed the pin which was embedded in the duodenal wall. Endoscopic retrieval using polypectomy snare was done successfully [Figure 2]. The patient was discharged after 3 days.

Case 3

An 18-year-old girl, with no past medical history, presented for diffuse abdominal pain and vomiting since 2 days. She lived with her family and no history of psychiatric disorder was reported. Laboratory data were normal. Computed tomography scan of the abdomen showed an intraluminal hyperdense rounded formation

at the proximal ileum. Diagnosis of intestinal obstruction was made and conservative management with nasogastric tube and intravenous fluid has been instituted. However, the patient failed to improve and emergent laparotomy was decided. A 4 × 3 cm mobile intra luminal mass was found 50 cm proximal to ileo-caecal junction, with dilated proximal segment. We managed to drag the mass up to the rectum and get it out through the anus, without enterotomy. It was a trichobezoar. The postoperative period was uneventful. The patient ended-up admitting having trichotillomania and trichophagia troubles, triggered in particular by stressful situations, like exam period. Upper gastrointestinal endoscopy was done and a significant amount of trichobezoar has been successfully retrieved. Patient was discharged after 2 days and referred to psychiatric.

Discussion

Ingestion of foreign bodies mainly occurs in the pediatric population, especially those between 6 months and 6 years of age. [3,4] In adults, it can be inadvertent or intentional. It occurs more commonly in those with psychiatric illness, drug addiction, alcoholism, poor visual acuity, intellectual impairment and convicted individuals. [5] Foreign bodies are also classified as blunt objects, sharp-pointed objects, long objects, food bolus impaction, bezoar, and objects containing poison like button battery or narcotic body pocket. [6]

Management depends on several factors including nature of the object, anatomic location, patient's age, clinical condition, endoscopist's competence and technical abilities. [7]

Ingested foreign objects most often lodge in the oesophagus, the upper digestive tube. A typical clinical symptoms is, then, observed with dysphagia, odynophagia, sialorrhoea and chest pain. [8,9] They may cause a serious clinical condition, because of their potential to induce complications like oesophageal erosion,

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Figure 1: Endoscopic retrieval of the toothbrush lodged in the gastric body using Dormia basket.

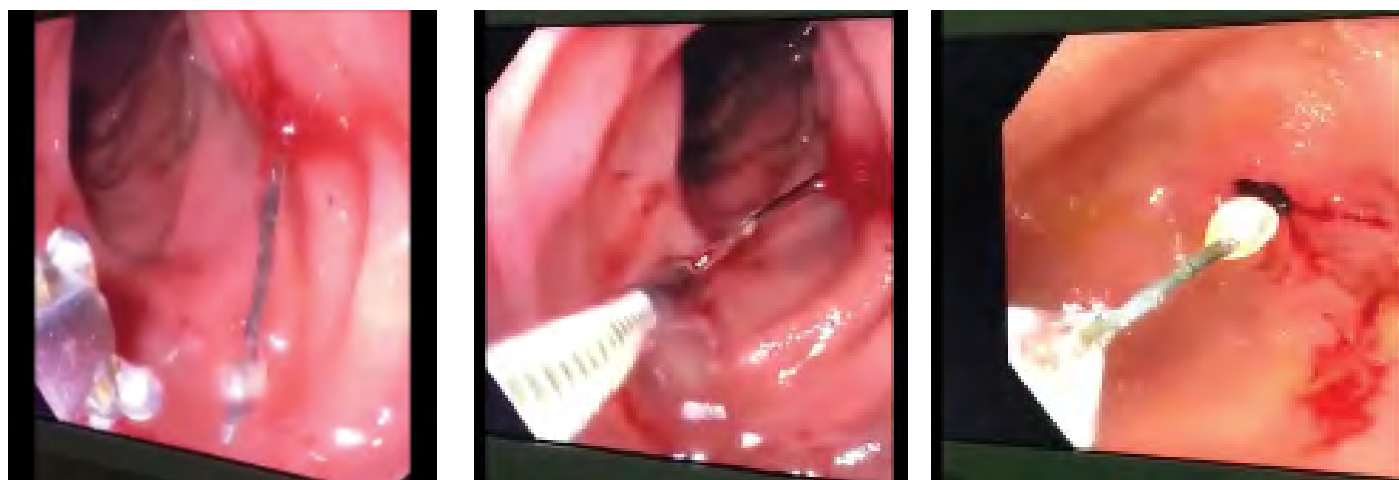


Figure 2: Endoscopic retrieval of the pin which was embedded in the duodenal wall using a polypectomy snare.

fistulization, perforation and mediastinitis. [10] Therefore, all foreign bodies impacted in the oesophagus require early and urgent intervention. [11]

Once in the stomach, most objects pass uneventfully the gastrointestinal tract without problems. [12,13] However, long objects like toothbrushes or pens are unable to pass the duodenal curvature with its fixed retroperitoneal attachment. [14]

The diagnosis is usually easy from the patient's history and the clinical symptoms. Sometimes, additional investigations are needed. Chest or abdominal radiography may not only show the foreign body, but may also show indirect signs of complications like pneumoperitoneum and mediastinitis. [6] Computed tomography is obviously more sensitive and identifies the foreign body in 70-100% of patients. [15]

The development of endoscopic instruments in the last years makes interventional endoscopy the most effective method for foreign body removal from the upper gastrointestinal tract. [16] Skok and Al recently reported, in a retrospective study of the period 1994-2018, a success rate of 96% of the endoscopic procedure (165 patients/ 172 patients). [8] These results are comparable with data from the literature. Kamiya and Al reported that among the 215 procedures performed between 2007 and 2018, the success rate was 100%, and complication was observed in only one case (0.5%). [3] Therefore, surgery would be rarely necessary and most often performed in case of complications.

Conclusion

Endoscopic extraction of impacted foreign bodies into the upper gastrointestinal tract is safe and effective.

Competing Interests

The authors declare that they have no competing interests.

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